

VIA FACSIMILE TRANSMISSION - Official
To Fax Number 571-273-8300
Application No. 08/879,467
April 28, 2006

In the Claims

Please cancel claims 19-21, 24-30, 32-40, 43 and 45-52, without prejudice or disclaimer.

The following listing of claims will replace all prior versions of the claims in this application.

Listing of Claims

Claims 1-21 (cancelled)

Claim 22 (currently amended): A coded image capture and decoding system

comprising:

(a) an optical system that captures image data from coded targets, so as to generate a plurality of image data groups each representing information concerning a coded target as a whole;

(b) a first processing system, coupled to the optical system, that supplies a plurality of undecoded images each based on one of the image data groups received from the optical system, so that said plurality of undecoded images each represents information concerning a coded target as a whole;

(c) an image buffer, coupled to the first processing system, that stores said plurality of undecoded images generated by the first processing circuit; and

(d) a non-dedicated second processing system, for coupling to the image buffer, that, after said plurality of undecoded images each representing information concerning a coded target as a whole, are stored in the image buffer, after a notification to the non-dedicated second processing system of the presence of said plurality of undecoded images in the image buffer, and with the non-dedicated second processing

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system having the plurality of undecoded images available at a time for processing,
attempts decode processing of said plurality of undecoded images[.]];
The coded image capture and decoding system of claim 21 wherein said non-dedicated second processing system selectively attempts decode processing of each of said plurality of undecoded images in succession, while the optical system may be in a power saving state until expiration of a time interval before resuming image capture operation

Claim 23 (currently amended): A coded image capture and decoding system comprising:

- (a) an optical system that captures image data from coded targets, so as to generate a plurality of image data groups each representing information concerning a coded target as a whole;
- (b) a first processing system, coupled to the optical system, that supplies a plurality of undecoded images each based on one of the image data groups received from the optical system, so that said plurality of undecoded images each represents information concerning a coded target as a whole;
- (c) an image buffer, coupled to the first processing system, that stores said plurality of undecoded images generated by the first processing circuit; and
- (d) a non-dedicated second processing system, for coupling to the image buffer, that, after said plurality of undecoded images each representing information concerning a coded target as a whole, are stored in the image buffer, after a notification to the non-dedicated second processing system of the presence of said plurality of

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undecoded images in the image buffer, and with the non-dedicated second processing system having the plurality of undecoded images available at a time for processing, attempts decode processing of said plurality of undecoded images[.].
The ~~coded image capture and decoding system of claim 21 wherein said non-dedicated second processing system upon successful decoding of any one of the plurality of undecoded images ignores notification of a further plurality of undecoded images being in the image buffer where such further plurality of undecoded images may be of the same coded target from which an undecoded image has just been successfully decoded.~~

Claims 24-30 (cancelled)

Claim 31 (currently amended): The method of processing optically read two-dimensional code images from a two-dimensional code of a two-dimensional coded target, said method comprising

- (a) assembling in an image buffer a plurality of undecoded two-dimensional code images each representing information concerning the same two-dimensional code as a whole;
- (b) after assembly of the plurality of undecoded two-dimensional code images in the image buffer, signaling a non-dedicated processor capable of reading the two-dimensional code, to process the information in the image buffer; and
- (c) the non-dedicated processor, after receipt of a signal that a plurality of undecoded two-dimensional code images are assembled in the image buffer, at a time selected by the non-dedicated processor, carrying out a decode processing which selectively includes processing of all of the plurality of undecoded two-dimensional code images in the image buffer[.].

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The method of claim 27, wherein at least five two-dimensional images are read from the same two-dimensional code of the two-dimensional coded target before the non-dedicated processor is signaled to process the information in the image buffer[. . .]; and

The method of claim 30, wherein the at least five two-dimensional images read from the same two-dimensional code are screened and only two-dimensional images meeting the screening requirements are assembled in the image buffer, the non-dedicated processor not being signaled if less than two undecoded images have been assembled in the image buffer after screening of the at least five two-dimensional images.

Claims 32-40 (cancelled)

Claim 41 (currently amended): A coded image capture and decoding system comprising:

- (a) a code capture system that has a field of view encompassing a complete optical code configuration so as to read optical information from a complete optical code configuration to be decoded, said code capture system generating sets of undecoded data from a plurality of optical readings of the same optical code configuration; and
- (b) a processing system for receiving sets of undecoded data based on a plurality of optical readings of the same optical code configuration;
- (c) said processing system thereby having available for decoding the received sets of undecoded data from a plurality of optical readings of the same code configuration and being operative to effect a decoding process that comprises utilizing the received sets of undecoded data from more than one optical reading of the same code configuration, to provide decoding of such code configuration[. . .];

The coded image capture and decoding system of claim 32 wherein the code capture system comprises a screening system for evaluating the sets of undecoded data as generated by the code capture system, and transmits to the processing system those sets of undecoded data that

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appear to represent a valid optical code configuration only if more than one set of undecoded data appears to represent a valid optical code configuration.

Claim 42 (currently amended): A coded image capture and decoding system comprising:

- (a) a code capture system that has a field of view encompassing a complete optical code configuration so as to read optical information from a complete optical code configuration to be decoded, said code capture system generating sets of undecoded data from a plurality of optical readings of the same optical code configuration; and
- (b) a processing system for receiving sets of undecoded data based on a plurality of optical readings of the same optical code configuration;
- (c) said processing system thereby having available for decoding the received sets of undecoded data from a plurality of optical readings of the same code configuration and being operative to effect a decoding process that comprises utilizing the received sets of undecoded data from more than one optical reading of the same code configuration, to provide decoding of such code configuration[.]];

~~The coded image capture and decoding system of claim 32 wherein the code capture system comprises a screening system for evaluating the sets of undecoded data as generated by the code capture system, and transmits to the processing system those sets of undecoded data that appear to represent a valid optical code configuration only if more than one set of undecoded data appears to represent a valid optical code configuration, and only when the processing system has completed higher priority processing operations.~~

Claim 43 (cancelled)

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Claim 44 (currently amended): A coded image capture and decoding system comprising:

- (a) a code capture system that has a field of view encompassing a complete optical code configuration so as to read optical information from a complete optical code configuration to be decoded, said code capture system generating sets of undecoded data from a plurality of optical readings of the same optical code configuration; and
- (b) a processing system for receiving sets of undecoded data based on a plurality of optical readings of the same optical code configuration;
- (c) said processing system thereby having available for decoding the received sets of undecoded data from a plurality of optical readings of the same code configuration and being operative to effect a decoding process that comprises utilizing the received sets of undecoded data from more than one optical reading of the same code configuration, to provide decoding of such code configuration[.].

~~The coded image capture and decoding system of claim 32 wherein the code capture system comprises a screening system operative to apply a screening process for evaluating the sets of undecoded data as generated by the code capture system, said screening system transmitting to the processing system only those sets of undecoded data that appear to represent a valid optical code configuration, said screening process comprising comparing the similarity of the plurality of sets of undecoded data.~~

Claims 45 52 (cancelled):